

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of:	§	Filed: November 13, 2001
John Matthew Santosuosso	§	
	§	Group Art Unit: 2161
Serial No.: 10/007,713	§	
	§	Examiner: Cam Linh Nguyen
Confirmation No.: 6341	§	

For: METHOD FOR UPDATING A DATABASE FROM A BROWSER

MAIL STOP APPEAL BRIEF - PATENTS  
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<u>August 6, 2009</u>	<u>/Joseph Jong/</u>
Date	Joseph Jong

**APPEAL BRIEF**

Applicants submit this Appeal Brief to the Board of Patent Appeals and Interferences on appeal from the decision of the Examiner of Group Art Unit 2161 dated April 7, 2009, finally rejecting claims 1-36. The final rejection of claims 1-36 is appealed. This Appeal Brief is believed to be timely since it is transmitted by the due date of August 17, 2009, as set by the filing of a Notice of Appeal on June 17, 2009.

Since an appeal brief fee in the amount of \$500 had been paid for a previous appeal that did not reach a Board Decision, the fees due for filing this appeal brief is the difference between the current fee of \$540 and the previously paid amount of \$500. The Commissioner is hereby authorized to charge \$40 to counsel's Deposit Account No. 09-0465 / ROC920010222US1 for filing this appeal brief, and for any other fees required to make this appeal brief timely and acceptable to the Office.

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### **Real Party in Interest**

The present application has been assigned to International Business Machines Corporation, Armonk, New York.

### **Related Appeals and Interferences**

Applicant asserts that no other appeals or interferences are known to the Applicant, the Applicant's legal representative, or assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

### **Status of Claims**

Claims 1-36 are pending in the application. Claims 1-36 were originally presented in the application. Claims 1-36 stand finally rejected as discussed below. The final rejections of claims 1-36 are appealed. The pending claims are shown in the attached Claims Appendix.

### **Status of Amendments**

All claim amendments have been entered by the Examiner. No amendments to the claims were proposed after the final rejection.

## **Summary of Claimed Subject Matter**

Claimed embodiments of the invention provide for methods, apparatus and articles of manufacture for updating a database containing information related to one or more web pages. See Pg. 4, Para. 0007; Fig. 1, Items 100, 170, 130, 180. For example, with respect to Claim 1, the claim describes monitoring operations of a web browser program to detect an event indicating a change involving a web page for which information is stored in the database and, in response to detecting such an event, sending a notification to the database containing the information causing the information to be updated in accordance with the change. See Pg. 11, Paras. 0033-0034; Fig. 1, Items 130, 134, 116, 172, 180.

### **CLAIM 11 - INDEPENDENT CLAIM**

With respect to Claim 11, the claim describes a computer-readable storage medium, comprising a program which, when executed by a processor, performs an operation for updating a database on a server containing information about a set of web pages. See Pg. 4, Para. 007; Pg. 6, Para. 0020; Fig. 1, Items 116, 120, 130, 134, 180. The operation includes receiving a change request from a web browser. See Pg. 8, Para. 0025; Fig. 1, Items 120, 170, 180, 172. The change request indicates the web browser has detected a change related to a web page for which information is stored in the database. See Pg. 11, Para. 0033; Fig. 1, Items 134, 130. The operation further includes updating the database based on information contained in the change request to reflect the detected change. See Pg. 8, Para. 0025; Fig. 1, Items, 120, 170, 180, 172, 178.

### **CLAIM 21 - INDEPENDENT CLAIM**

With respect to claim 21, the claim describes a computer system, including a database containing information about a set of web pages and a memory containing at least a database management system comprising a database update program. See Pg. 7, Para. 0022; Fig. 1, Items 120, 170, 180, 172. The computer system further includes

a processor which, when executing the database update program, is configured to update at least one table in the database containing information about a web page in response to receiving a change request from a web browser. See Pg. 12 Para. 0036; Fig. 1, Items 110, 112, 170, 172; Fig. 3, Item 360. The change request contains information indicating the web browser detected a change event related to the web page. See Pg. 11-12, Paras. 0034-0035; Fig. 1, Items 130, 134; Fig. 3, Item 360.

#### CLAIM 29 - INDEPENDENT CLAIM

With respect to claim 29, the claim describes a method for updating a database containing references to network addresses. See Pg. 7, Para. 0022; Fig. 1, Items 120, 170, 180, 172. The method includes automatically accessing each network address on a list of network addresses referenced in the database and determining one or more changes in location or content related to a web page associated with each network address accessed. See Pg. 14, Para. 0041; Fig. 1, Items 176, 180, 116; Fig. 5, Items 520, 530, 540. The method also includes automatically updating the database according to the one or more changes. See Pg. 14, Para. 0041-0042; Fig. 1, Items 176, 180, 116; Fig. 5, Items 550, 555, 560, 565.

#### CLAIM 33 - INDEPENDENT CLAIM

With respect to claim 33, the claim describes a computer-readable medium, comprising a program which, when executed by a processor, performs an operation for updating a database containing references to network addresses. See Pg. 4, Para. 007; Pg. 6, Para. 0020; Fig. 1, Items 116, 120, 130, 134, 180. The operation includes automatically accessing each network address on a list of network addresses referenced in the database and determining one or more changes in location or content related to a web page associated with each network address accessed. See Pg. 14, Para. 0041; Fig. 1, Items 176, 180, 116; Fig. 5, Items 520, 530, 540. The operation also includes automatically updating the database according to the one or more changes. See Pg. 14, Para. 0041-0042; Fig. 1, Items 176, 180, 116; Fig. 5, Items 550, 555, 560, 565.



### **Grounds of Rejection to be Reviewed on Appeal**

1. Rejection of claims 1-36 under 35 U.S.C. 103(a) as being unpatentable over *Birnbaum et al.* (U.S. 2002/0143878 A1, hereinafter *Birnbaum*) in view of *Smith et al.* (U.S. 6,578,078, hereinafter *Smith*).

## **ARGUMENTS**

### **Rejection of claims 1-36 under 35 U.S.C. § 103(a) as being unpatentable over *Birnbaum* in view of *Smith*.**

#### *The Applicable Law*

The Examiner bears the initial burden of establishing a prima facie case of obviousness. See MPEP § 2141. Establishing a prima facie case of obviousness begins with first resolving the factual inquiries of *Graham v. John Deere Co.* 383 U.S. 1 (1966). The factual inquiries are as follows:

- (A) determining the scope and content of the prior art;
- (B) ascertaining the differences between the claimed invention and the prior art;
- (C) resolving the level of ordinary skill in the art; and
- (D) considering any objective indicia of nonobviousness.

Once the *Graham* factual inquiries are resolved, the Examiner must determine whether the claimed invention would have been obvious to one of ordinary skill in the art.

#### *The Cited References*

In the Examiner's rejection under 35 U.S.C. Sec. 103(a), the Examiner cites *Birnbaum* and *Smith*.

In *Birnbaum*, a mini-application is used to enable web collaboration between two computing devices. See *Birnbaum*, Abstract; Para. 0051, Pg. 4. The collaboration provided enables users at a first and second computing device to browse the Internet in unison and may be used for remote training of an employee. See *Birnbaum*, Para. 0094, Pg. 8. When a connection is established between the first and second computing device, the mini-application is downloaded to the first computing device. See *Birnbaum*, Paras. 0050-0051, Pg. 4. The mini-application monitors the first computing device for changes and sends information about the changes to the second computing device which implements the information by acting on or displaying that information. See *Birnbaum*, Paras. 0055-0056, Pg. 4. For example, the mini-application monitors

“predetermined changes in the web browser program” on the first computing device. *See Birnbaum*, Para. 0065, Pg. 5. When a change in browser activity is detected, information regarding the change is collected and sent to an agent’s computing device by the mini-application. *See Birnbaum*, Para. 0067, Pg. 5.

*Smith* describes a set of program modules that comprise a Referential Preservation Engine (RPE). *See Smith*, Col. 8, Lines 6-11. An RPE running on an external server tracks the movement of resources on that server and saves changes in the locations of resources as redirection data. *See Smith*, Col. 8, Lines 20-24. The RPE provides a method for updating URL references that are stored in browsers. *See Smith*, Col. 8, Lines 37-39. A browser runs on a client computer and typically contains a list of web sites or documents that are marked as favorites by a user. *See Smith*, Col. 8, Lines 39-41. When these web sites are initially marked as favorites, or optionally, when a user uses one of these favorite URLs to visit a web site or page, the browser sends a message identifying the client's address to the server where the favorite site or page is located. *See Smith*, Col. 8, Lines 43-48. Web sites that are running the RPE compile these messages, and store them in a database. *See Smith*, Col. 8, Lines 48-49. Thus, *Smith* distinguishes between an RPE which runs on a server and a browser which runs on a client computer, both by using separate terms for the items “RPE” and “browser” and by stating that the RPE receives messages from the browser. *See Smith*, Col. 8, 37-49.

#### *The Prior Art References Do Not Teach or Suggest All the Claim Limitations*

#### *The Rejection of Claim 11 and Dependents*

With respect to claim 11, and the claims that depend therefrom, the claim describes receiving a change request from a web browser, the change request indicating the web browser has detected a change related to a web page for which information is stored in the database. The Examiner states that *Birnbaum* discloses “receiving a change request from a web browser, the change request indicating the web browser has detected a change related to a web page for which information is stored in the database” at Fig. 2A and Paras. 0056, 0064 - 0065, and 0067 of *Birnbaum*.

From the description of *Birnbaum* provided above, it should be clear that *Birnbaum* does not teach the claimed elements for multiple reasons. First, in *Birnbaum*, changes in a web browser are detected, not a change related to a web page. *Birnbaum* specifically states that “the mini-application monitors for predetermined changes *in the web browser program* on the first computing device”. See *Birnbaum*, Pg. 5, Para. 0065. If a change in browser activity on the customer computing device is detected, then information regarding the change is collected and sent to the agent’s computing device. See *Birnbaum*, Pg. 5, Para. 0067. While the Examiner states that “the information that [is] detected can be new information entered by the user, information entered into a form by the user” and that “this information [is] related to a web page because the user used a web browser to enter information” (See Examiner’s *Response to Arguments* in *Final Office Action dated December 14, 2005*, hereinafter *First Final Office Action*, Pg. 7, Item 4), *Birnbaum* merely states that a change in browser activity is monitored, not a change related to a web page. See *id.* Accordingly, the cited section does not describe receiving a change request from a web browser, the change request indicating the web browser has detected a change related to a web page for which information is stored in the database. Withdrawal of the rejection is respectfully requested.

Furthermore, in *Birnbaum*, information regarding a change in the web browser program is received from the mini-application, and not a web browser. See Para. 0067, Pg. 5. In the Examiner’s *Response to Arguments* (*First Final Office Action*, Pg. 8, Para. 1), the Examiner states that *Birnbaum* discloses a web browser in each computing device and that in Fig. 2A information for a change is detected from a browser. However, in describing Fig. 2A, *Birnbaum* clearly states that the customer’s computing device receives a mini-application and that “the mini-application monitors for predetermined changes in the web browser program on the first computing device”. See Pg. 5, Paras. 0061 and 0065. Thus, in *Birnbaum*, the mini-application, not a browser (as asserted by the Examiner), monitors for predetermined changes. Accordingly, the cited figure does not describe “receiving a change request from a web browser, the change request indicating *the web browser has detected a change* related to a web page for which information is stored in the database” because in *Birnbaum*, the

mini-application, and not the browser, detects the predetermined changes. Therefore, withdrawal of the rejection is respectfully requested.

In the Examiner's *Response to Arguments* of the *Final Office Action* dated April 7, 2009, (hereinafter *Second Final Office Action*), the Examiner asserts that Applicant argues that the reference patent fails to disclose "a change related to a webpage". (*Second Final Office Action*, p. 7, paragraph 5, first bullet.) Respectfully, this is a mischaracterization of Applicant's position, and an oversimplification of the claim limitation. As is clearly stated above, Applicant is focusing on what is being detected, and by whom. The fact that a change may be made to a webpage by a user entering information into the webpage is entirely immaterial to the issue of whether the reference teaches a change request indicating the web browser has detected a change related to a web page.

The Examiner also argues that "the memory in the agent browser is represented as a database that can be used to store new information". (*Second Final Office Action*, p. 7, paragraph 5, second bullet.) With all due respect, the Examiner goes too far. The Examiner essentially suggests that any in-memory information constitutes a database. A database is well known to those skilled in the art as a structured repository for data that is accessible by a defined query language, such as SQL. However, even allowing for the Examiner's overly broad characterization of a database, the limitations of the claim are still not taught for the reasons given above.

The Examiner also states that *Smith* discloses a method for updating a web address in the server in response to a request comprising updating a database in response to receiving a change request from a browser, citing Col. 13 lines 1 – 10 of *Smith*. The Examiner further states that a change request corresponds to the command from the author to move or delete a page. The section cited by the Examiner describes the logical steps the **RPE** uses when a web site author moves or deletes a page on a web site. *Smith*, Col. 1, Lines 1-10. Thus, the cited section describes a user interacting with an RPE. As described above, the RPE described by *Smith* is not a web browser and thus, the Examiner's contention that the cited section describes a command that is issued from a browser is incorrect. See *Smith*, Col. 8, 37-49. Accordingly, the cited section does not describe receiving a change request from a web browser, the change

request indicating the web browser has detected a change related to a web page for which information is stored in the database. Withdrawal of the rejection is respectfully requested.

*The Rejection of Claim 1 and Dependents*

With respect to claim 1, and the claims that depend therefrom, the claim describes a method for updating a database containing information related to one or more web pages. The method includes monitoring operations of a web browser program to detect an event indicating a change involving a web page for which information is stored in the database. The Examiner states that *Birnbaum* describes "monitoring operation of a web browser program to detect an event indicating a change involving a web page for which information is stored in the database" at Fig. 2A and Paras. 0056, 0064 - 0065, and 0067 of *Birnbaum*. As described above, *Birnbaum* does not teach detecting a change related to a web page for which information is stored in a database. Accordingly, Applicant respectfully submits that *Birnbaum* does not disclose the cited limitation. Accordingly, withdrawal of the rejection is respectfully requested.

*The Rejection of Claim 21 and Dependents*

With respect to claim 21, and the claims that depend therefrom, the claim describes a processor which, when executing the database update program, is configured to update at least one table in the database containing information about a web page in response to receiving a change request from a web browser, the change request containing information indicating the web browser detected a change event related to the web page. Examiner cites *Birnbaum* as teaching the claimed limitation. However, as described above, (i) in *Birnbaum*, changes in a web browser are detected, not a change related to a web page and (ii) in *Birnbaum* information regarding a change in the web browser program is received from the mini-application, and not a web browser. Accordingly, Applicant respectfully submits that *Birnbaum* does not disclose the cited limitation as asserted by the Examiner. Furthermore, as described above, Accordingly, withdrawal of the rejection is respectfully requested.

*The Rejection of Claims 29 and 33 and Dependents*

With respect to claims 29 and 33, and the claims that depend therefrom, the claims describe automatically accessing each network address on a list of network addresses referenced in the database, determining one or more changes in location or content related to a web page associated with each network address accessed, and automatically updating the database according to the one or more changes. The Examiner argues that *Smith* teaches automatically accessing each network address on a list of addresses referenced in a database, referring to Fig. 4 and Col. 13, Lines 30-50.

First, as previously noted by the Applicant, the cited sections are directed to redirecting and do not teach the claimed limitation. Also, while the Examiner states that claim 29 “further includes” an additional element relative to claims 11 and 1, Applicant notes that the elements in claim 29 are not included in claims 11 or 1, nor does claim 29 depend from the cited claims. Finally, with respect to claim 33, the Examiner does not provide a substantive rejection of the claims. While the claims are not separately addressed, Applicant submits that to the extent the elements of claim 33 are similar to those of other claims address herein, the elements of claim 33 are not taught in *Smith*. Accordingly, withdrawal of the rejection is respectfully requested.

Therefore, the claims are believed to be allowable, and allowance of the claims is respectfully requested.

## CONCLUSION

The Examiner errs in finding that claims 1-36 are unpatentable over *Birnbaum* in view of *Smith* under 35 U.S.C. 103(a). Withdrawal of the rejection and allowance of all claims is respectfully requested.

Respectfully submitted, and  
**S-signed pursuant to 37 CFR 1.4,**

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## CLAIMS APPENDIX

1. (Previously Presented) A method for updating a database containing information related to one or more web pages, comprising:
  - monitoring operations of a web browser program to detect an event indicating a change involving a web page for which information is stored in the database; and
  - in response to detecting such an event, sending a notification to the database containing the information causing the information to be updated in accordance with the change.
2. (Previously Presented) The method of claim 1, further comprising:
  - verifying whether a data table in the database allows automatic updates before sending the notification.
3. (Previously Presented) The method of claim 1, further comprising:
  - attaching the database to the web browser through a login process.
4. (Previously Presented) The method of claim 3, wherein the web browser resides on a client system and the database resides on a server system.
5. (Previously Presented) The method of claim 1, wherein the event comprises receiving, from a web server, a page redirect request to change a uniform resource locator (URL) of a web page from a first network address to a second network address.
6. (Previously Presented) The method of claim 5, wherein the notification sent to the database requests replacement of the first network address with the second network address in one or more data tables in the database.
7. (Original) The method of claim 5, wherein the first and second network addresses are utilized as links on a web page.

8. (Previously Presented) The method of claim 1, wherein the event comprises a change in a web page.

9. (Previously Presented) The method of claim 8, wherein the notification sent to the database contains sufficient information to update the database to reflect the change in the web page.

10. (Previously Presented) The method of claim 9, wherein the notification contains sufficient information to update the database to reflect multiple changes in the web page.

11. (Previously Presented) A computer-readable storage medium, comprising a program which, when executed by a processor, performs an operation for updating a database on a server containing information about a set of web pages, the operation comprising:

receiving a change request from a web browser, the change request indicating the web browser has detected a change related to a web page for which information is stored in the database; and

updating the database based on information contained in the change request to reflect the detected change.

12. (Previously Presented) The computer-readable storage medium of claim 11, wherein the operation further comprises verifying whether a data table in the database allows automatic updates before updating the data table.

13. (Previously Presented) The computer-readable storage medium of claim 11, wherein the operation further comprises attaching the database to the web browser.

14. (Previously Presented) The computer-readable storage medium of claim 13, wherein the web browser is on a client system and the database is connected to a server system.

15. (Previously Presented) The computer-readable storage medium of claim 11, wherein the information contained in the change request indicates the web browser detected a redirect notification from a server redirecting the web page from a first network address to a second network address.

16. (Previously Presented) The computer-readable storage medium of claim 15, wherein the updating comprises replacing the first network address with the second network address in one or more data tables in the database.

17. (Previously Presented) The computer-readable storage medium of claim 15, wherein the first and second network addresses are utilized as links on a web page.

18. (Previously Presented) The computer-readable storage medium of claim 11, wherein the information contained in the change request indicates the web browser detected a change in the web page.

19. (Previously Presented) The computer-readable storage medium of claim 18, wherein the updating comprises executing a trigger program for determining additional programs to be run to update the database, based on the information contained in the change request.

20. (Previously Presented) The computer-readable storage medium of claim 11, wherein the notification contains sufficient information to update the database to reflect multiple changes in the web page.

21. (Previously Presented) A computer system, comprising:  
a database containing information about a set of web pages;  
a memory containing at least a database management system comprising a database update program; and

a processor which, when executing the database update program, is configured to update at least one table in the database containing information about a web page in response to receiving a change request from a web browser, the change request containing information indicating the web browser detected a change event related to the web page.

22. (Previously Presented) The computer system of claim 21, further comprising a network connection configured to allow communication with the web browser after a secure attachment procedure.

23. (Previously Presented) The computer system of claim 21, wherein the information indicating the web browser detected a change event related to the web page comprises an indication the web browser detected a change to the content or layout of the web page.

24. (Previously Presented) The computer system of claim 23, wherein the processor is configured to execute a trigger program for determining additional programs to be run to update the database, based on the information contained in the change request.

25. (Previously Presented) The computer system of claim 21, wherein the processor is further configured to verify whether the data table in the database allows automatic updates before updating the data table.

26. (Previously Presented) The computer system of claim 21, wherein information contained in the change request indicates receipt by the web browser of a page redirect request from a first network address to a second network address, and wherein the processor is configured to replace the first network address with the second network address in one or more data tables in the database.

27. (Previously Presented) The computer system of claim 21, wherein the processor is configured to execute a trigger program for determining additional programs to be run

to update the database to reflect multiple changes indicated in the information contained in the change request.

28. (Previously Presented) The computer system of claim 21, wherein the processor is configured to execute multiple sub-trigger programs to update the database to reflect the multiple changes indicated in the information contained in the change request.

29. (Previously Presented) A method for updating a database containing references to network addresses, comprising:

automatically accessing each network address on a list of network addresses referenced in the database;

determining one or more changes in location or content related to a web page associated with each network address accessed; and

automatically updating the database according to the one or more changes.

30. (Original) The method of claim 29, further comprising:

generating the list of network addresses from the database.

31. (Previously Presented) The method of claim 29, wherein determining one or more changes in location or content related to a web page associated with each network address accessed comprises detecting a page redirect from a first network address to a second network address, and wherein the database is updated to replace the first network address with the second network address in one or more data tables in the database.

32. (Original) The method of claim 29, wherein the updating comprises executing one or more trigger programs according to the one or more changes related to the network address.

33. (Previously Presented) A signal bearing medium, comprising a program which, when executed by a processor, performs an operation for updating a database containing references to network addresses, the operation comprising:

automatically accessing each network address on a list of network addresses referenced in the database;

determining one or more changes in location or content related to a web page associated with each network address accessed; and

automatically updating the database according to the one or more changes.

34. (Original) The signal bearing medium of claim 33, further comprising:

generating the list of network addresses from the database.

35. (Previously Presented) The signal bearing medium of claim 33, wherein determining one or more changes in location or content related to a web page associated with each network address accessed comprises detecting a page redirect from a first network address to a second network address, and wherein the database is updated to replace the first network address with the second network address in one or more data tables in the database.

36. (Previously Presented) The signal bearing medium of claim 33, wherein the updating comprises executing one or more trigger programs according to the one or more changes related to the web page associated with the network address.

## EVIDENCE APPENDIX

None.

## RELATED PROCEEDINGS APPENDIX

None.